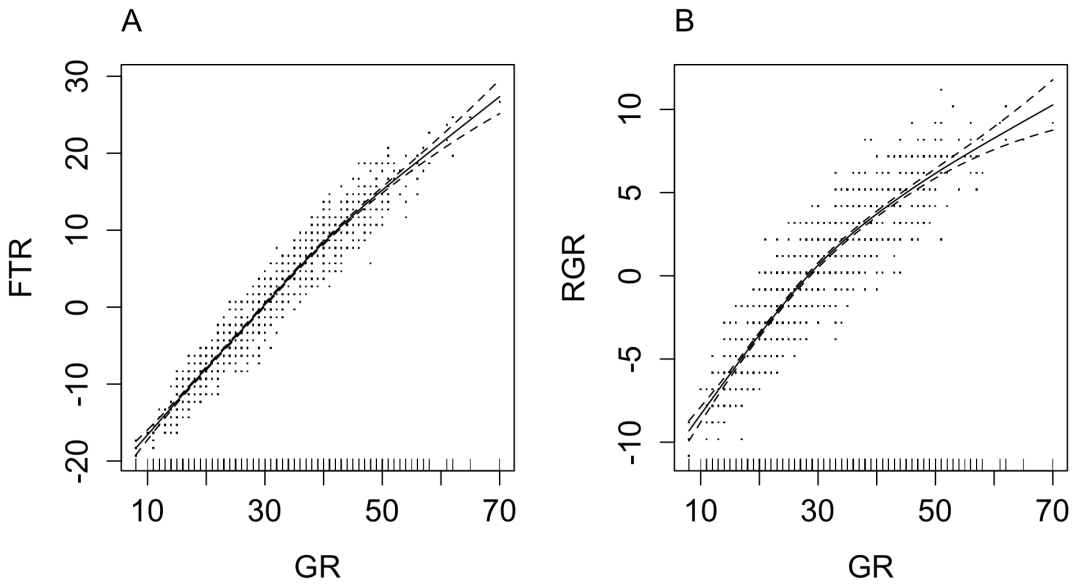
Supplement 3 for:

Abonyi, A., Z. Horváth & R. Ptacnik, 2018. Functional richness outperforms taxonomic richness in predicting ecosystem functioning in natural phytoplankton communities. Freshwater Biology 63(2):178–186 doi:10.1111/fwb.13051.

Supplement 3A Coefficient of determination (R^2) in linear (LM) and Generalized Additive Models (GAM) predicting (A) the number of unique combinations of functional trait categories (FTR); and (B) response group richness *sensu* Reynolds (RGR) from genus richness (GR). The p value of each model is given in brackets. NO: Norwegian lakes, SE: Swedish lakes, FI: Finish lakes, All: the entire dataset including the three Fennoscandian countries

Region	**n**	**R^2 (LM)**	**R^2 (GAM)**
(A)		FTR=a+b*GR	FTR=s(GR)
NO	537	0.869 (<0.001)	0.874 (<0.001)
SE	158	0.834 (<0.001)	0.838 (<0.001)
FI	321	0.876 (<0.001)	0.884 (<0.001)
All	1016	0.938 (<0.001)	0.941 (<0.001)
(B)		RGR=a+b*GR	RGR=s(GR)
NO	537	0.728 (<0.001)	0.732 (<0.001)
SE	158	0.652 (<0.001)	0.655 (<0.001)
FI	321	0.613 (<0.001)	0.627 (<0.001)
All	1016	0.810 (<0.001)	0.831 (<0.001)



Supplement 3B Generalized Additive Models (GAM) predicting (A) the number of unique combinations of functional trait categories: FTR (R^2=0.941, p<0.001) and (B) the functional response group richness *sensu* Reynolds: RGR (R^2=0.831, p<0.001) from genus richness (G). Data involves Fennoscandian summer phytoplankton compositions (n=1016)